

# CALIFORNIA'S HEALTH

WILTON L. HALVERSON, M.D.  
DIRECTOR OF PUBLIC HEALTH

STATE DEPARTMENT OF PUBLIC HEALTH  
ESTABLISHED APRIL 15, 1870

PUBLISHED SEMI-MONTHLY

ENTERED AS SECOND-CLASS MATTER FEB. 21, 1922, AT THE POST OFFICE AT SACRAMENTO, CALIFORNIA, UNDER THE ACT OF AUG. 24, 1912. ACCEPTANCE FOR MAILING AT THE SPECIAL RATE OF POSTAGE PROVIDED FOR IN SECTION 1109, ACT OF OCT. 3, 1917

SACRAMENTO (14), 691 J STREET, 2-4711

SAN FRANCISCO (2), 668 PHELAN BLDG., 760 MARKET ST., UN 8700

LOS ANGELES (12), STATE OFFICE BLDG., 217 W. FIRST ST., MA 1271

VOLUME 3, NUMBER 24

JUNE 30, 1946

ANN WILSON HAYNES  
Editor

## STATE BOARD OF PUBLIC HEALTH

DR. CHARLES E. SMITH, President  
San Francisco

DR. SANFORD M. MOOSE  
San Francisco

DR. JAMES F. RINEHART, Vice President  
San Francisco

DR. ERROL R. KING  
Riverside

DR. ELMER BELT  
Los Angeles

DR. SAMUEL J. MCCLENDON  
San Diego

DR. HARRY E. HENDERSON  
Santa Barbara

DR. WILTON L. HALVERSON,  
Executive Officer  
San Francisco

## FACTS ABOUT POISON OAK\*

Possibilities in combatting poison oak have been improved sharply by the recent development of inexpensive chemical sprays which will kill the whole plant, including the roots. In the past, eradication seemed practically impossible, even in parks, vacant lots, campuses, and other frequented areas. Now communities can drive it from such areas by initial sprayings followed by yearly check-ups.

The Berkeley Recreation Department has demonstrated the effectiveness of the new chemical agents and plans to use them in killing poison oak in the parks this year. The studies of Professors A. S. Crafts and W. A. Harvey of the Division of Botany in the College of Agriculture on the Davis campus indicate the effectiveness of two new chemical agents. Local commercial companies are ready to guarantee the elimination of poison oak by spraying and subsequent occasional respraying of new poison oak seedlings. The new chemicals, described later in this summary, are on sale in most seed and hardware stores.

The discomfort and seriousness of oak poisoning can best be described by its victims. They can not be evaluated easily in dollars and cents. But it is possible to estimate the cost of illness from this source. A consideration of both the suffering and the cost suggest the elimination of poison oak from parks and other lands frequented by people, now that we have effective chemical killing agents available at moderate prices.

As a specific example, it can be seen from the record of the last two years at the Berkeley campus of the University of California that 0.65 per cent of the students are hospitalized annually with oak poisoning for an average of 6.9 days each, representing a per capita

cost of 56 cents per student in the student body. In addition, 41 students per 1,000, who do not have to be hospitalized, seek medical aid for oak poisoning each year. If we add lost time costs for both groups and costs for medical care, drugs, and the expenses of those who seek desensitization, the total would be well over one dollar per capita.

### THE NATURE OF OAK POISONING

Poison oak dermatitis is very frequently serious enough to need medical attention.

Symptoms of poisoning are produced when the poison (urushiol) penetrates the outer surface of the skin. They may appear from a few hours to five days or longer after exposure. An itching, burning sensation is first noticed and becomes intense as inflammation develops. Swelling of the parts involved usually occurs. There may be only reddening, accompanied by swelling, but more often vesicles or water blisters appear.<sup>6</sup>

Inflammation may continue for several days. Pus may later form in the vesicles, followed by the formation of a crust or scab. When the inflammation subsides, the outer layer of the skin peels off, leaving a layer of new skin.<sup>6</sup>

Secondary infections may result when bacteria enter broken areas of the skin.<sup>4</sup> In complicated cases more serious symptoms may be present, such as abscesses, enlargement of glands, pain, fever, and other constitutional symptoms.<sup>4</sup>

### THE POISON

The poison (urushiol) in poison oak and poison ivy is a non-volatile phenol compound (a dializable fraction of an oleo-resin). It is soluble in alcohol, ether, acetone, carbon tetrachloride, and petroleum.<sup>1</sup> It loses

\*A summary of present knowledge and recent research findings prepared by the class in Health Education of the School of Public Health, University of California, under the direction of Professor C. E. Turner.

its toxicity when oxidized; but it oxidizes slowly upon exposure to air. It is oxidized by alkaline peroxides. The plant contains an enzyme, laccase, which oxidizes the poison when the plant is injured and its juices exposed to air.<sup>1</sup>

A trace of the poison (0.001 mg.) is enough to produce local poisoning.<sup>1</sup> It remains toxic for weeks or months when dried on clothing or other material, in the bark of the plant, or in leaves or branches which have been cut from a plant.<sup>3</sup> It does not cause skin irritation in animals.<sup>4</sup>

Urushiol occurs in special resin cells or resin canals in the bark, roots, stems, leaves, and fruit. Pollen grains do not contain it.<sup>3</sup>

#### HOW DOES ONE CONTRACT POISON OAK DERMATITIS

Urushiol reaches the skin through contact with the plant, with smoke from burning plants, or with surfaces upon which microscopic quantities have, in some way, been deposited.<sup>6,4</sup> The transfer of the poison by such agencies as clothing, shoes, tools, soil, animals, and other plants which have come in contact with poison oak, makes it very difficult to avoid. Possibly insects which have touched or fed upon the juices of the plant may transfer the poison.<sup>1</sup> It is transferred from one part of the body to another by scratching, touching, or rubbing.<sup>3</sup> The serum from the vesicles does not cause dermatitis.<sup>3</sup> Urushiol is not air-borne except upon soot particles in smoke when the plant is burned.<sup>1</sup>

#### SUSCEPTIBILITY

Careful studies indicate that there is no complete, permanent immunity to oak poisoning, either natural or acquired, although some persons can handle poison oak without being affected and the sensitivity of a susceptible person can be temporarily reduced by certain medical measures.<sup>1,4,6</sup>

Children and other persons become sensitive to poison oak following their first contact with it.<sup>1</sup> Some persons become extremely sensitive although the sensitivity slowly diminishes if there is no further contact with the plant for several years.<sup>1</sup> Successful preventive treatment with urushiol preparations reduces sensitivity for a few weeks or months, but does not produce a permanent immunity.<sup>1</sup> The old practice of chewing the leaves does not protect against oak poisoning but often produces symptoms.<sup>1</sup>

Some persons have a marked resistance to the action of the poison, although the skin becomes inflamed upon prolonged exposure to urushiol. Such a person may have had repeated contact with the plant without symptoms, only to develop poisoning on subsequent exposure.<sup>6</sup>

#### APPEARANCE AND DISTRIBUTION OF THE PLANT

Poison oak grows in many forms but it may be recognized by the leaf arrangement in which three glossy leaflets are grouped together. The individual leaflets vary widely in shape from the notched oak leaf shape to the oblong smooth-edged leaf. They are red in the spring when small, green in the summer, and red or scarlet in the fall. The plants may be slender vines on the ground, thick climbing vines, scattered vertical stocks, or sturdy bushes growing sometimes to a height of eight feet or more.<sup>6</sup>

The plant is so widely distributed in many areas that it is wise to assume its presence until its absence is proved, whenever one goes to the roadside, fields or woods. The plant spreads by underground roots.<sup>4</sup> New plants are seeded directly by fruit which has dropped to the ground, and by seeds in the droppings of birds which have eaten the berries.<sup>3</sup>

#### HOW TO AVOID OAK POISONING

If possible keep away from hills, fields, woods, and all land which you suspect may contain poison oak.

If you do have to go where poison oak grows:

1. Learn to recognize the plant in all its forms by the leaf structure with its typical grouping of three leaflets. Also be on guard against leafless stems, bushes, and vines during the winter months.
2. Assume that the vines or bushes of poison oak are present until you have made sure they are not.
3. Wear protective clothing which can be cleansed by washing with alkaline soap or a chemical agent for removing the poison (gloves, boots, overalls, jacket, shirt). Clothes or tools can be decontaminated by immersing for fifteen or twenty minutes in a 1 per cent solution of calcium hypochlorite.<sup>5</sup>
4. At no time touch the face or any part of the body with hands or gloves which may have urushiol upon them.<sup>3</sup>
5. Upon returning home wash thoroughly using plenty of yellow laundry soap. Apply soap and rinse at least twice.<sup>6</sup>
6. Avoid contact with clothing, tools, animals, soil, or other surfaces which may have been contaminated.<sup>6,4</sup>
7. Avoid all smoke which may contain soot from burning poison oak.<sup>1,4,3</sup>

#### CHEMICALS TO KILL POISON OAK

Two chemicals, 2,4-D and ammonium sulfamate, are supplanting older methods of killing or digging out the plant. With the aid of these chemicals, commercial companies engaged in weed control are now ready to guarantee the complete eradication of poison oak.

#### 2,4-D

2,4-Dichlorophenoxyacetic acid is a hormone-like chemical which in small quantities stimulates growth but kills broad-leaved plants when applied in greater concentration to the actively growing leaves. It is neither poisonous to animals, nor corrosive to metals.<sup>4</sup>

It is not a fire hazard. It would temporarily sterilize soil if the soil were drenched with it, but has little or no effect upon the soil when used as a spray on poison oak. Grass is not injured by 2,4-D. Other adjacent broad-leaved plants may be injured if hit by the spray, but they are not likely to be killed unless seriously wetted.

2,4-D is made by several chemical companies under different trade names in both powder and liquid form. When properly applied, a dilution of 0.2 per cent of 2,4-D kills the whole plant. Directions for diluting to produce a suitable spray for poison oak are printed on the packages of the various commercial brands.

Some plants may not be hit in the first spraying, or a remote lateral root may stay alive and send up a shoot. A second spraying three or four weeks later to hit the few remaining plants may be needed, therefore. An occasional missed plant or a new plant coming up from seed may appear the next spring and need spraying.

Spraying should be done when the leaves present a large surface but before the plant has completed the season's growth and becomes dormant. 2,4-D is taken up by the leaves and appears to destroy the chlorophyll and cause the walls of the growing cells of the plant to rupture. The leaves begin to wilt after a few days, but a month is required to produce killing action.

Retail prices of a 40 per cent concentrate of 2,4-D are from \$8 to \$11 a gallon. In quantity lots of five gallons or more it can be bought at \$6.50 per gallon or less.

#### AMMONIUM SULFAMATE

On fully mature plants late in the season, ammonium sulfamate is more effective than 2,4-D. It is more expensive and somewhat corrosive to metals, although not explosive or poisonous to animals. It kills other plants, including grass, and sterilizes the soil for a time when enough is used to wet the ground. This may be desirable in industrial areas.

The cost is about 30 cents a pound at retail and 15 cents a pound or less in quantity. One pound per gallon of water is recommended in making a spray for poison oak.

#### STEPS IN KILLING POISON OAK

If you have a small area to be cleared of poison oak, it may be most convenient and least expensive to employ a weed control expert. If you spray the plants yourself:

1. Be sure the chemical is well mixed in sufficient concentration.
2. Spray when the leaves are developed sufficiently to give a large surface and when the plant is growing rapidly. *2,4-D is not effective late in the season when the plant has become dormant.*

3. Spray the whole plant and cover the leaf surfaces as completely as possible. Neither moisture on the leaves, nor rain a few hours after spraying will prevent the killing action of the spray.
4. If a few plants have survived, kill them by spraying a second time in three or four weeks.
5. Examine the area the next spring and kill any new plants which may have come up from seed.
6. Clean spraying equipment thoroughly before using other sprays on cultivated plants.

#### REFERENCES

- <sup>1</sup> American Medical Association, Council of Pharmacy and Chemistry. Stevens, Franklin, A.: "Status of Poison Ivy Extracts," *Journal of the American Medical Association* 127: 912-921, April 7, 1945.  
(This report of the Council on Pharmacy and Chemistry reviews the literature and research covered by 87 articles in the earlier literature.)
- <sup>2</sup> Donald, W. G.: *California and Western Medicine* 23:3, 1925, with Dr. H. E. Alderson, "Treatment of Poison Oak Dermatitis."
- <sup>3</sup> New York State College of Forestry, Syracuse University. Harlow, William M.: "Poison Ivy and Poison Sumac," 1945.
- <sup>4</sup> United States Department of Agriculture. Crooks, D. M. and Kephart, L. W.: "Poison Ivy, Poison Oak and Poison Sumac," *Farmers' Bulletin* 1972: 1-30, 1945.
- <sup>5</sup> United States Public Health Service. Schwartz, L., Dunn, J. E., and Goldman, F. H.: "A New Base for the Protective Ointment for the Prevention of Poison Ivy Dermatitis," *United States Public Health Reports* 57: 578-588, 1942.
- <sup>6</sup> "Ivy and Sumac Poisoning," *Supplement #161 to the United States Public Health Service Reports*, 1940.
- <sup>7</sup> Hildebrand, E. M.: "War on Weeds," *Science* 103: 2677, April, 19, 1946, pp. 465-468. In the same issue see also: "Plant Growth Regulators" by the Special Projects Division, Chemical Warfare Service, pp. 469-470 and "Technical Papers" pp. 472-479.

An additional bibliography of over 100 items is carried in the references listed.

#### NATIONAL HOUSING AGENCY

The main activities of the Federal Government relating to housing will under the plan be consolidated in one National Housing Agency under the direction of a National Housing Administrator, to be appointed by the President by and with the advice and consent of the Senate. The plan establishes three constituent units corresponding to those now existing in the National Housing Agency, to be known as the Federal Housing Administration, the Federal Public Housing Authority, and the Federal Home Loan Bank Administration. Each unit will be under a Commissioner to be appointed by the President.

#### FILM ON SEWAGE TREATMENT AVAILABLE

A new 16 mm. sound film, in color, titled *Clean Waters*, produced by General Electric may be obtained for showings on a loan basis from the Bureau of Health Education, State Department of Public Health, 760 Market Street, San Francisco 2. The running time is 25 minutes.

This title presents the problem of water contamination resulting from inadequate sewage treatment; the danger to health and the economic loss resulting from pollution of streams, rivers, lakes and coastal waters. The processes in a modern sewage treatment plant are shown by animated diagrams. The quality of production in this film is outstanding.



## SEWAGE DISPOSAL PROJECTS PLANNED IN MANY CALIFORNIA CITIES

By C. G. Gillespie, Chief,  
Bureau of Sanitary Engineering

The number of requests for State permits for sewage disposal projects is by far the greatest since the establishment of the Bureau of Sanitary Engineering in the State Department of Public Health. The list of communities where improved sewage disposal is being definitely planned is almost a roll-call of the cities of the State.

A number of factors have stimulated community action. There is an increased demand by people everywhere for disposal by sanitary sewerage systems in preference to individual cesspools and septic tanks. In many communities disposal systems are now handling the maximum volume for which they were designed and expansion is necessary to meet present demands and those which will be occasioned by postwar home building. In some communities, where new industries are desired, it is recognized that additional disposal facilities will be necessary lest valuable industrial projects be lost. Construction of community sewerage systems was virtually halted during the war.

Community plans for improved facilities reflect not only the need for sanitary sewage disposal but also a deep-seated desire by the people and public officials for a cleaner countryside, for streams which support fish life for the pleasure of the sportsman, and for beaches which offer all forms of water recreation. It is now generally recognized that California waterways are a natural resource of too great value to permit their use merely for drainage purposes. In addition to the need to preserve streams, lakes and beaches for recreation, it is essential for the public health that the water in many streams and lakes be of a quality that can be converted into wholly satisfactory drinking water without the employment of expensive purification processes.

In communities where public education is needed concerning the desirability of protecting waterways from contamination with sewage, the new color film, *Clean Waters*, will be found to be an effective educational tool. The film, which is now available from the State Department of Public Health, contrasts the mouth-watering pristine purity of our streams with the loathsome defilement civilization has created in them by sewage and industrial waste and demonstrates how modern sewage disposal makes possible the return of waterways to their original purity.

### CITY-COUNTY BILL

In their efforts to improve sewerage systems, communities will be assisted financially by the \$90,400,000 city-county bill passed by the Legislature in special session. Nearly half of the appropriation is earmarked for sewage disposal by cities and towns on a 50-50 matching basis which will provide close to \$90,000,000 for new sanitation projects. Community efforts were strengthened by action of the State Board of Public Health which has announced no new permits will be issued for the disposal of raw sewage into California streams, bays and ocean waters and that all old permits for this practice will be revoked by January 1, 1947.

It is not yet a year since V-J Day. Yet new sewage disposal works are under construction at Riverside, Oildale, near Bakersfield, Oakley, and Redding. Construction has been started on the \$22,000,000 City of Los Angeles activated sludge plant and outfall project into Santa Monica Bay—by far the largest sanitation project ever undertaken in the history of this State. The plant will serve not only Los Angeles but all or parts of some 15 satellite cities and districts.

Notable among the bond issues is the passage of a fund for \$2,800,000 by the City of Stockton to clean up its harbor and the San Joaquin River and so redeem these waters for recreation.

Projects sufficiently advanced so that permit applications are pending before the State Board of Public Health include Watsonville, San Anselmo Sanitary District, Signal Hill, Fillmore, South Sacramento, Napa Metropolitan District, Gridley, various cities in Orange County, five small communities in Sonoma County, Hanford, Fresno, and Clovis.

Engineering offices have been authorized to prepare reports for feasible projects at a large number of places, among which may be mentioned Oceanside, San Francisco, San Pablo Sanitary District, Santa Barbara, Hemet, Sacramento, Big Bear Sanitation District, Seal Beach, Needles, Jamestown, Tulare, Groveland, San Jose, Modesto, and Valley of the Moon in Sonoma County.

After years of study the East Bay cities have practically completed their project to put an end to the notorious stench along the eastern shore of San Francisco Bay.

## PLANS FOR REORGANIZATION OF FEDERAL AGENCIES

Reorganization plans affecting Federal agencies concerned with child care and development, education, health, social insurance, welfare, recreation, housing, and employment have been submitted to Congress by the President, and will become effective 60 days after May 16, 1946, unless disapproved by a concurrent resolution passed by both houses before that time.

### FEDERAL SECURITY AGENCY

*Children's Bureau.*—The reorganization would transfer to the Federal Security Administrator the functions of the Children's Bureau which are concerned with child welfare, crippled children, child and maternal health, and research in problems of child life. Those functions which relate to child labor under the Fair Labor Standards Act are transferred to the Secretary of Labor in order that they may be performed by, or in close relationship with, the Wage and Hour Division.

*Vital Statistics.*—The plan transfers the vital statistics functions of the Census Bureau to the Federal Security Administrator to be performed through the Public Health Service or other facilities of the Agency.

*Social Security Board.*—The functions of the Social Security Board are transferred to the Federal Security Administrator and provision is made for not more than two new assistant heads of the Agency for the administration of that program.

*Vending Stand Program for the Blind.*—The functions of the Office of Education as to the vending stand program for the blind are transferred to the Federal Security Administrator.

*Grant-in-Aid Programs.*—The plan provides that insofar as practicable and consistent with applicable legislation, the Administrator of the Federal Security Agency shall establish uniform standards and procedures for grant-in-aid programs and permit States to submit a single plan of operation for related grant-in-aid programs.

*Executive Department.*—The President in his message said that he will soon recommend that Congress enact legislation making the Federal Security Agency an Executive Department, defining its purpose, and authorizing the president to transfer to it such units and activities as come within that definition.

### U. S. EMPLOYMENT SERVICE

The plan transfers to the U. S. Employment Service the function of the Selective Service System and its Director with respect to assisting ex-servicemen in obtaining new positions.

## FELLOWSHIPS TO TRAIN PHYSICIANS AND SANITARY ENGINEERS

Fellowships in public health for 125 physicians and sanitary engineers are announced by the U. S. Public Health Service, under a grant from the National Foundation for Infantile Paralysis.

Each fellowship provides a year's graduate training in a school of public health or a school of sanitary engineering. The fellowships are available either during the academic year beginning in the fall of 1946 or the fall of 1947, and are open to men and women who are citizens of the United States and under 45 years of age. Present employees of State and local health departments are not eligible for this program since other fellowships are available to them through State departments of public health.

Applicants for fellowships may secure further details by writing to the Surgeon General, U. S. Public Health Service, Attention: Public Health Training, Nineteenth and Constitution Avenue NW., Washington 25, D. C. Completed applications for training in 1946 should be filed promptly. The awards committee will act on applications on the following dates: June 15th, July 1st, July 15th, and August 1st.

## DR. LENNETTE BECOMES DIRECTOR OF MICROBIOLOGIC RESEARCH IN EAST

Dr. Edwin H. Lennette leaves July 1st to accept a position as director of the Division of Microbiologic Research at Camp Detrick, Frederick, Maryland. As a member of the staff of the International Health Division of the Rockefeller Foundation, Dr. Lennette has been attached to the Virus Laboratory of the State Department of Public Health.

## MAY ACT MADE PERMANENT

The May Act, making prostitution in the vicinity of military and naval establishments a Federal offense, becomes a permanent law under new legislation signed by the President on May 15. The bill, H. R. 6305, to make permanent the provisions of the original May Act of July 11, 1941, had been introduced on May 3d by Congressman Andrew J. May, Chairman of the House Committee on Military Affairs and author of the original May Act.

## CIVIL SERVICE EXAMINATIONS

The State Personnel Board announces civil service examinations for *senior account clerk, supervising account clerk, grade 1, and supervising account clerk, grade 2*. The final date for filing application is July 6th; the examination date is July 27th.

Examinations are also announced for *assistant statistician* and *associate statistician* with final date for filing application July 13th and examination date August 3d.

### ACADEMY OF PEDIATRICS SURVEY

The Academy of Pediatrics is undertaking a study of child health services because of the realization that thorough and systematic planning in the postwar era will be necessary in order to provide children with the care which they need. The academy feels that the responsibility for such planning rests with physicians, since they, for the most part, must provide the care.

The study is intended to determine what services are available and to evaluate the quality of these services, and will fall into four categories:

- (1) Hospital facilities for the care of children.
- (2) Community health services—public and private. This will cover the general health services, such as child health conferences, school health services, child guidance clinics, immunization programs, and public health nursing.
- (3) The distribution, qualifications, and activities of professional personnel. These data will be collected from pediatricians, general practitioners, and specialists who care for children.
- (4) Pediatric education. This division of the study is not a part of the State program but will be carried out on a National basis by a special committee appointed for the purpose and will evaluate the quantity and quality of training in pediatrics in 66 medical schools throughout the country.

One of the primary purposes of the survey is to stimulate local groups to see the needs within their own communities and to evaluate existing facilities. The factual data collected will be used by the Academy of Pediatrics as a basis for developing recommendations for medical care programs.

The Bureau of Hospital Surveys is including the questionnaire on hospital pediatric facilities in the survey of hospital facilities.

The Bureau of Maternal and Child Health is cooperating with the academy in supplying data on community health services.

### OPINION OF THE ATTORNEY GENERAL

#### FIRE PREVENTION AND PROTECTION IN HOSPITALS (Opinion No. 46-163)

In answer to specific questions, the Attorney General ruled that it is the responsibility of the State Fire Marshal to adopt minimum standards for fire protection in hospitals and to determine the question of compliance with such regulations. In areas where the local governing body has adopted ordinances or rules and regulations not inconsistent with the minimum standards of the State, the responsibility rests with the chief

of the fire department of the county, city or fire protection district.

The State Department of Public Health, pursuant to Section 1411 of the Health and Safety Code, may establish and enforce its own rules and regulations or may require hospitals which it licenses to comply with existing minimum standards. Failure or refusal within a reasonable time after notice to comply has been given may be ground for the revocation of a hospital license.

As a result of this opinion the State Board of Public Health at its meeting on May 8th rescinded the Minimum Fire Safety Standards which had been adopted on December 15, 1945. The board adopted a general regulation requiring all licensed hospitals to secure a fire inspection and fire clearance from the State Fire Marshal or his authorized agents, such inspection to be based on the minimum standards as adopted by the State Fire Marshal.

### SCHOOL HEALTH INSTITUTES STIMULATE COMMUNITY ACTION

The School Health Institutes held in March and April under the joint sponsorship of the State Departments of Public Health and Education have been instrumental in stimulating interest in problems of school health. Activities resulting from the institutes include the organization of follow-up meetings in some local areas, the organization of local committees representing schools and health departments, and the evaluation of school health programs by some school faculties.

While more persons attended the sessions than registered, a summary of the registered attendance at the institutes shows that the registration of 513 at Oakland was the largest; of 151 at San Diego the smallest. The other registrations were 238 in San Bernardino, 225 in Sacramento, 213 in Fresno, and 208 in Santa Barbara.

Of the total of 1,548 persons registered, there were 768 public health nurses, 408 school administrators, school health nurses, and school teachers; 108 students; 94 doctors and dentists; 26 registered nurses; 8 community health educators; 47 persons engaged in various other professions; and 89 lay persons, including representatives of parent-teacher organizations.

### DRAMA IN WELFARE WORK

True situations in the lives of people who are helped through welfare agencies will be presented in a series of dramatic radio stories: *Adventures of the Red Feather Man* by the Community Chests of San Francisco, Berkeley, Oakland, and Alameda.

The *Adventures* will be on the air over:

KFSO 1.45-2.00 p.m. Mondays.  
KQW 10.30-10.45 p.m. Wednesdays.  
KJBS 2.00-2.15 p.m. Fridays.



### APPOINTMENT TO STATE BOARD OF NURSE EXAMINERS

Miss Christine Mackenzie, Educational Assistant of the Bureau of Public Health Nursing, has been appointed by the Governor to the State Board of Nurse Examiners for the term expiring in 1950. Before coming to the State Department of Public Health in August, 1945, Miss Mackenzie was Assistant Professor of Public Health Nursing at the University of California.

### TWO NEW FULL-TIME COUNTY HEALTH DEPARTMENTS

The Kings county and the Humboldt county boards of supervisors have voted to establish full-time county health departments. The State Department of Public Health will assist both of them financially.

The number of counties in California served by full-time county health departments will total 31 when these two new departments have been established.

### HANDLING OF PLASMA UNITS

It is no longer necessary to fill out the questionnaires in the plasma units, according to the Bureau of Acute Communicable Diseases. Although these forms still appear in the package, they may be disregarded.

Outdated plasma should *not* be discarded. Instead, it should be returned, at Red Cross expense, to:

MR. FRED WEAR, Acting Supply Director  
Pacific Area, American Red Cross  
1400 Howard Street  
San Francisco 3, California

### HEALTH OFFICER CHANGES

Dr. John L. Parker has replaced Dr. Miriam Hubbell as health officer of Imperial County.

Dr. J. L. Dennis has replaced Dr. B. E. McDowell as health officer of Merced County.

Dr. Allen E. Priest has replaced Dr. J. W. Crever as health officer of Lassen County. Dr. Crever will continue to act as health officer for the city of Susanville.

Mr. A. B. Cottar has replaced Mr. W. P. Ayotte as health officer of the City of Dunsmuir.

Dr. Lester J. Sawyer has replaced Mrs. Laura A. Donzel as health officer of the City of Belvedere.

The rat is an expensive pest. It is stated that it costs two dollars a year to feed one rat. The annual National cost is estimated at 250 million dollars. The value of food and other material destroyed and contaminated by the beast probably goes over a billion dollars.—Sutter-Yuba Health Department *Monthly Bulletin*.

### REGULATIONS ADOPTED GOVERNING REGISTRATION OF SANITARIANS

The Sanitarians' Registration Act passed at the 1945 Session of the Legislature provides that sanitarians employed by local health agencies must be registered by the State Department of Public Health. Assistant Sanitarians may be hired for a period of two years without registration.

The act contains a "grandfather clause" under which persons employed prior to September 15, 1945, or those passing local civil service examinations before January 1, 1946, must be accepted for registration without examinations. About 700 applications have been received and 601 persons have been accepted as qualified and are now registered.

Concurrently an advisory board was named to advise the State Board of Public Health on the establishment of minimum standards and qualifications for examination for registration. Members of the advisory board are:

C. G. Gillespie, Chief, Bureau of Sanitary Engineering, Chairman  
S. F. Farnsworth, M.D., Oakland city health officer  
E. L. Russell, M.D., Orange County health officer  
Walter S. Mangold, associate professor of sanitary science, University of California  
Thomas McMorrow, sanitarian, Contra Costa County  
Charles L. Senn, Sanitary engineer, Los Angeles city  
H. H. McMillan, executive secretary, National Association of Sanitarians

After consultation with many sanitarians and review by local health officers, the following regulations were adopted by the State Board of Public Health, May 8, 1946, as follows:

Article I. Beginning July 1, 1948, the minimum standards and qualifications for admission to examination as Registered Sanitarian under Chapter 856, 1945 Statutes, shall be as follows:

Section 1. Successful completion of two years in an accredited university, college or junior college with major in basic sciences; and

Section 2. Completion of a course in sanitation approved by the California State Department of Public Health; and

Section 3. One year of full-time experience, or equivalent, in sanitation work in a health department.

Article II. For the period extending from the adoption of these minimum standards to July 1, 1948, the minimum requirements for admission to examination as a Registered Sanitarian shall be as follows:

Section 1. Graduation from high school; and

Section 2. Completion of an acceptable training course in the principles of sanitation; and

Section 3. One year of experience applying the principles of sanitation.

NOTE.—In the case of assistant sanitarians already employed in a health department at the time of adoption of these minimum standards and qualifications, Article II, Section 1 may be waived.

Qualified applicants will be examined from time to time at places convenient to the Department and to the applicant.

## SYNTHETIC RESINS

The study of air contamination at a phenolic resin plant has been concluded by the Bureau of Adult Health. The plant was operated as a pilot plant, pending the establishment of a process for manufacturing an especially activated phenolic formaldehyde resin used in the purification of water.

In the manufacturing process studied, the basic constituents—formaldehyde and phenol—are inter-related and subsequently treated with sodium bisulphate, sulphuric acid, ethylene oxide, tetraethylene pentamine, and epichlorhydrin. The treatment gives rise to air contamination by a number of toxic substances: formaldehyde, phenol, sulphur dioxide, ethylene oxide, epichlorhydrin, sulphuric acid mist and dust. The sampling procedures were complex and since changes were constantly being introduced into the manufacturing process, the taking of repeated samplings was necessitated.

It was found that the general principles of local exhaust ventilation and process isolation are adequate to control all of the hazards studied. Control measures essential to the maintenance of a suitable working atmosphere have been recommended for incorporation in the building plans of plants which will carry on this work.

## FINES FOR SALE AND DISTRIBUTION OF ADULTERATED DRIED FRUITS

A total fine of \$1,000—the largest amount possible for a first offense—was paid by a corporation in the Fresno area for the sale of adulterated fig paste and for the fraudulent use of an official agency inspection stamp on 78 cases of uninspected paste.

The minimum fine of \$25 was imposed by the Del Ray Court on a raisin packer who was found blending moldy and rain damaged raisins with standard raisins. It was also established that the moldy, substandard raisins had been shipped interstate and that an attempt had been made to alter the shipping records.

These two trials, in which both defendants pleaded guilty, are the result of a campaign to control the domestic sale and distribution of adulterated dried fruits. It is hoped that the action taken in the Fresno area will prove a deterrent to packers who are tempted to indulge in similar illegal practices.

"There is no clear-cut division between mentally healthy and mentally ill people; the one goes over imperceptibly into the other and the difference is a quantitative rather than a qualitative one." Kate Friedlander, M.D., D.P.M. *Health Education Journal* (British), January, 1946.

## MORBIDITY REPORT—MAY, 1946

Reportable diseases	Week ending					Total cases	5-yr. median	Total cases
	5-4	5-11	5-18	5-25	6-1	May	May	Jan.-May, 1946
Amebiasis (amoebic dysentery).....	5	3	4	6	5	23		71
Anthrax.....	1	2						3
Chancroid.....	7	12	19	9	11	58		210
Chickenpox (varicella).....	1,159	797	704	592	595	3,847	5,283	17,548
Cholera, Asiatic.....								
Coccidioid granuloma.....	1	2	1	1		5		14
Conjunctivitis—acute infectious of the newborn (Ophthalmia Neonatorum).....	3		5	1	2	11		34
Dengue.....								
Diarrhea of the newborn.....	26	17	12	18	17	90	91	502
Diphtheria.....	5	1	1	3	2	12		73
Dysentery, bacillary.....			4		2	6		19
Encephalitis, infectious.....	23	30	28	28	41	150		606
Epilepsy.....	4	1	6	64		75		196
Food poisoning.....	889	563	396	503	430	2,781		10,477
Glanders.....								
Gonococcus infection.....	706	486	665	422	598	2,877	1,116	13,071
Granuloma inguinale.....	15	9	12	21	9	66	144	5,111
Influenza, epidemic.....	1	4	7			12		49
Jaundice, infectious.....	1					1		4
Leprosy.....								
Lymphogranuloma venereum (lymphopatia venereum, lymphogranuloma inguinale).....	4	6	1	4	2	17		63
Malaria.....	13	11	15	6	11	56	12	389
Measles (rubeola).....	4,400	3,273	2,744	2,364	2,206	14,987	7,700	53,909
Meningitis, meningococcal.....	8	9	6	9	8	40	72	513
Mumps (parotitis).....	943	733	713	645	633	3,667	5,614	13,616
Paratyphoid fever, A and B.....	2	2		1	6	11		37
Plague.....								
Poliomyelitis, acute anterior.....	30	24	29	32	23	138	277	1,271
Psittacosis.....	3	3	10	9	11	36	17	184
Rabies, human.....								
Rabies, animal.....	7	19	10	7	6	49	88	264
Relapsing fever.....								
Rheumatic fever.....	24	15	5	19	14	77		313
Rocky Mountain spotted fever.....								
Scarlet fever.....	206	143	155	157	163	824	591	4,479
Septic sore throat, epidemic.....							2	10,584
Smallpox (variola).....								
Syphilis.....	584	357	579	414	414	2,348	2,451	10,584
Tetanus.....	2		2	1	1	6		27
Trachoma.....	8				1	9		6
Trichinosis.....			1			1		1
Tuberculosis, pulmonary.....	173	165	204	114	122	778	634	2,436
Tuberculosis, other forms.....	13	12	17	7	6	55	41	269
Tularemia.....								
Typhoid fever.....	1	1	6	4		12	13	57
Typhus fever.....								
Undulant fever, brucellosis.....	2	7	14	9	7	39	22	138
Whooping cough, pertussis.....	138	100	92	82	103	515	2,221	2,394
Yellow fever.....								
						33,669		139,269

## PUBLIC HEALTH SURVEY FOR SAN DIEGO COUNTY

Field Director of the American Public Health Association, Dr. Carl Buck, started a survey of public health administration of San Diego County the latter part of April. The survey was undertaken at the request of the San Diego City and County Health Departments and will be county-wide.

Printed in California State Printing Office 58866 C-46 7446

Documents Division  
General Library  
Univ. of Michigan  
Ann Arbor, Mich.



total

1000

71

210

18

56

56

600

10

600

100

477

070

10

111

60

4

60

600

610

610

27

1071

104

204

610

479

7

304

20

17

9

430

300

56

17

130

240

600

600

600

600